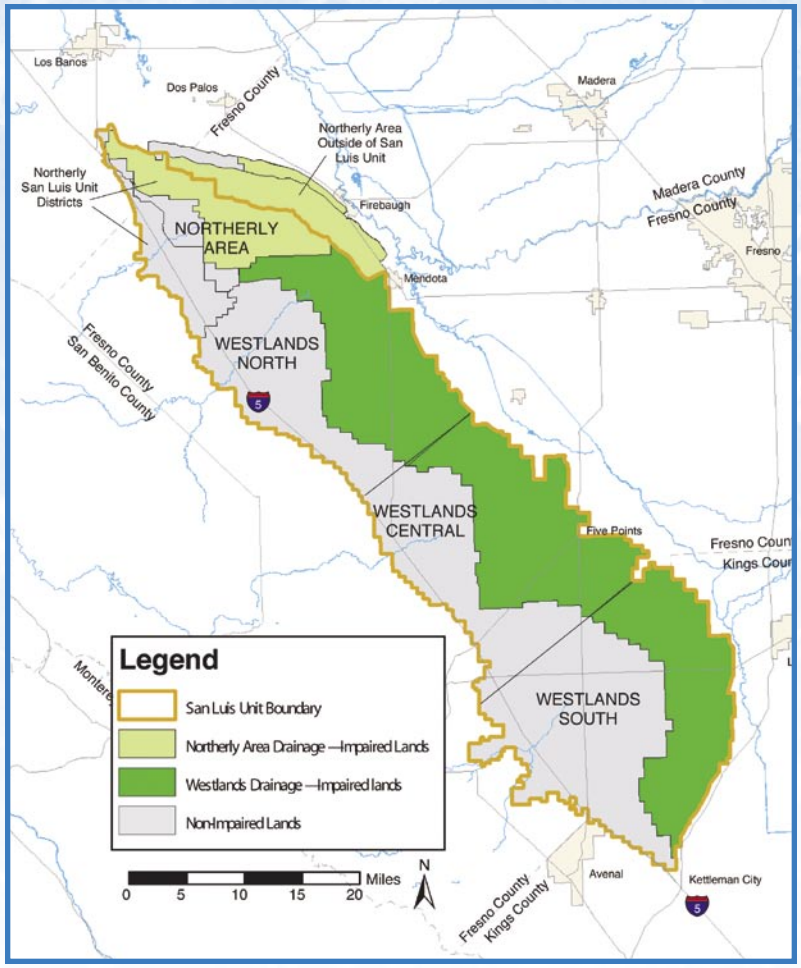
RECLAMATION
Managing Water in the West

SEPTEMBER 2004

San Luis Drainage
Feature Re-evaluation

Looking at Land Retirement Alternatives

On February 5, 2004, Reclamation submitted to the court an Amended Plan of Action for Drainage to the San Luis Unit, which states that Reclamation will evaluate land retirement alternatives as well as the alternatives described in the Plan Formulation Report (PFR) for inclusion in the Draft Environmental Impact Statement (EIS).



Drainage-Impaired Land within Study Area

The eight alternatives that will be evaluated in the EIS are:

- No Action
- In-Valley Disposal
- In-Valley Disposal combined with three different Land Retirement options
- Ocean Disposal
- Delta Disposal — Carquinez Strait or Chipps Island

Reclamation took this action following public input and dialogue with San Luis Unit (Unit) water contractors after the release of the PFR in December 2002. An Addendum to the PFR which defines the alternatives to be considered for providing drainage service to the Unit was published in July 2004.

Reclamation began discussions in 2003 regarding expanding the scope of the Re-evaluation to include land retirement of a part or all of the drainage-impaired lands in the Unit as an alternative. To gain further input about land retirement alternatives, Reclamation held a series of public scoping meetings in March 2004. A Scoping Report, describing stakeholder comments on developing land retirement alternatives, was issued in July 2004 along with the PFR Addendum, which developed preliminary information on land retirement as an alternative(s). At the same time, Reclamation has continued to prepare the Draft EIS. The Draft EIS will be available for public review in the Spring of 2005.

Revising the Plan Formulation Report

The Plan Formulation Report was issued in December 2002. In response to public comment, Reclamation decided that the Re-evaluation should consider land retirement as a component of a drainage service alternative(s). The PFR Addendum focuses on developing and identifying alternatives with varying levels of land retirement in combination with the In-Valley Disposal Alternative. However, updates to other study topics such as drainage quantity and quality, updated results of groundwater modeling, and the other proposed alternatives have also been included in the PFR Addendum, which is posted on the project Web site: http://www.usbr.gov/mp/sccao/sld.

New Land Retirement Alternatives

Reclamation has identified three additional alternatives that will be evaluated in the Environmental Impact Statement. They include:

- In-Valley/Groundwater Quality Land Retirement Alternative
- In-Valley/Water Needs Land Retirement Alternative
- In-Valley/Drainage-Impaired Area Land Retirement Alternative

The collection, treatment, and disposal of drainwater obtained from remaining drained lands would be similar to the elements of the In-Valley Disposal Alternative, modified to meet the revised drainage quantities. All variations of the land retirement alternatives include deep percolation reduction, regional reuse facilities, drainwater water treatment processes, and drainage service to land remaining in production.

In-Valley/Groundwater Quality Land Retirement Alternative

This alternative looks at retiring all the lands in Westlands Water District (Westlands) with selenium concentrations greater than 50 parts per billion (ppb) in the shallow groundwater as well as the lands already acquired by Westlands under the Sagouspe settlement. In the Northerly Area, this alternative would retire 10,000 acres in the Broadview Water District for a total of 92,600 acres retired.

In-Valley/Water Needs Land Retirement Alternative

This alternative would retire enough lands to balance internal water use needs of the Unit (194,000 acres). This would include all lands with selenium concentrations greater than 20 ppb in Westlands, lands already acquired by Westlands, and 10,000 acres in Broadview Water District.

In-Valley/Drainage-Impaired Area Land Retirement Alternative

This alternative evaluates retiring 308,000 acres, including all the drainage-impaired lands in Westlands. Land retirement in the Northerly Area will be limited to the 10,000 acres in Broadview Water District. Retiring all drainage-impaired lands removes the need for facilities in Westlands. Water in excess of Unit needs made available from this alternative could be utilized for other purposes.

The land retirement alternatives identified in the PFR Addendum will be evaluated in the Draft EIS along with the other alternatives. The Draft EIS will be available for public review in Spring 2005.

Your Input: Results from March 2004 Scoping Meetings

In March 2004, Reclamation held public scoping meetings in Sacramento, Concord, Fresno, and Cayucos. In these four meetings, stakeholders and the interested public commented on land retirement alternative(s) and related environmental issues.

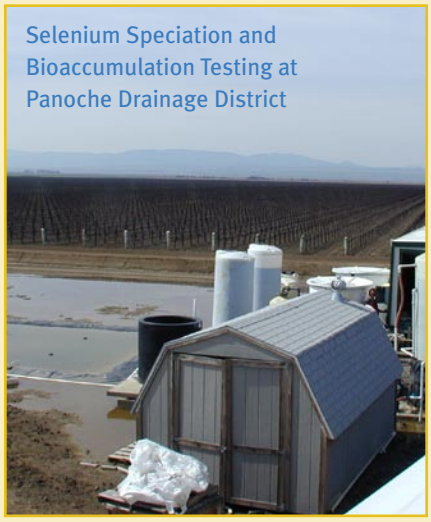
Comments primarily focused on environmental concerns, land retirement, and drainage reduction. Many stakeholders voiced concern over the existence of large evaporation basins that pose significant threats to wildlife. Some members of the public called on Reclamation to reduce the size of the ponds in order to minimize those impacts.

Reclamation is incorporating design elements to minimize the negative impacts of the evaporation and selenium treatment ponds within the Unit. The Draft EIS will describe the potential impacts and possible mitigation efforts associated with these facilities.

Reclamation also received numerous comments suggesting that retirement of drainage-impaired lands be considered as a distinct drainage disposal alternative in the EIS. Stakeholders commented that Reclamation should consider the full range of land retirement proposals under evaluation, including Westlands' proposal to retire 200,000 acres in the Unit. Other comments from the March 2004 scoping meetings regarding land retirement suggested that Reclamation consider the many socioeconomic implications, including loss of employment and income from agriculture.

The Scoping Report summarizes comments received and how they are incorporated into either the PFR Addendum or the Draft EIS. Those comments not addressed have been determined to be outside the scope of the Re-evaluation.

New Pilot Study: Selenium Speciation & Bioaccumulation Testing



Selenium Speciation and Bioaccumulation Testing at Panoche Drainage District

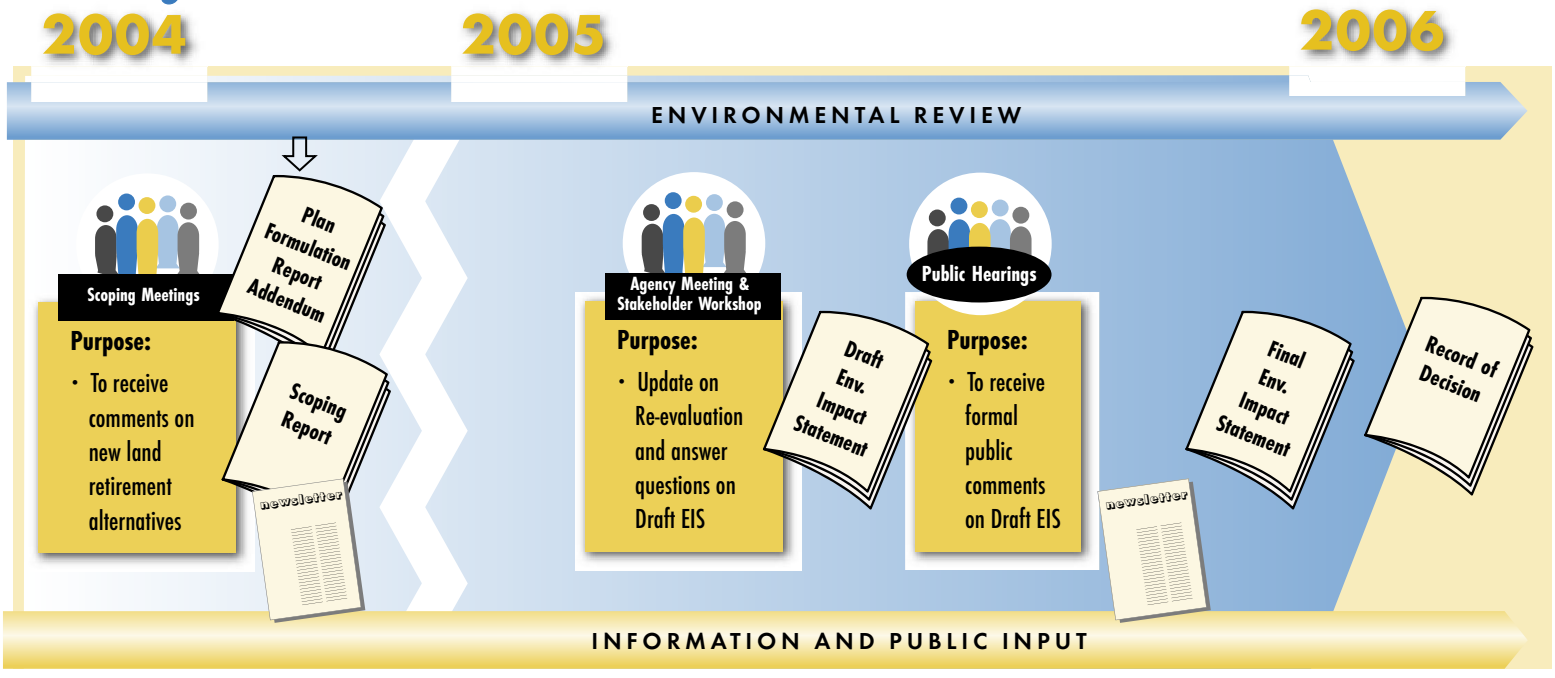
Reclamation is conducting a new pilot study to better predict the impacts of using evaporation basin systems for containing and evaporating biotreated drainage water. Selenium is a required element that can be toxic at high concentrations. One mechanism of selenium toxicity is through accumulation and concentration in the food chain (called bioaccumulation). Different forms of selenium have different tendencies to bioaccumulate and cause toxic effects. Through chemical and biochemical processes, the forms of selenium can be changed. These processes can result in changes in the oxidation state of selenium and incorporation into organic matter such as proteins. The chemical form of selenium is collectively termed "speciation." Reclamation has been testing the ability of a new biotreatment process to remove total selenium from drainage over the past year. The new pilot study will evaluate selenium speciation and bioaccumulation to establish **1) how the total concentration and speciation of selenium changes as a result of the biotreatment and evaporation process and; 2) how much bioaccumulation occurs in the pond system over time.**

For this study, Panoche Drainage District constructed a series of pilot evaporation ponds adjacent to the pilot selenium biotreatment system. Water from the biotreatment system will be evaporated in the pilot pond systems. Algae and invertebrates will be collected from other low selenium evaporation pond systems and used to seed the ponds. Over a period of several months, scientists will measure the effects of the biotreatment and pond processes on selenium concentration, speciation, and bioaccumulation in the pond water. These measurements will be used to reduce uncertainty in predicting impacts to wildlife that may be accidentally exposed to biotreated drainage water in the evaporation ponds. The use of evaporation ponds has been proposed as a part of the In-Valley Alternatives.

Gerald Robbins Takes Over as New Project Manager for the SLD

On Monday, August 8th, 2004, Gerald (Jerry) Robbins took over the position of Project Manager (PM) for the San Luis Drainage Feature Re-evaluation from Jason Phillips. Jerry comes to Reclamation after 13 years in private business consulting. In addition, Jerry worked for four years in Civil Service at McClellan Air Force Base as a project manager developing and restoring water resources in and around the base, including the investigations for groundwater contamination affecting the surrounding neighborhoods and water districts. Jerry has a BS in Geology (with a minor in Botany) from Indiana University and a MS in Hydrogeology/Geomorphology from Oklahoma State University. You may contact him via e-mail at grobbins@mp.usbr.gov.

Project Schedule



U.S. Department of the Interior
Bureau of Reclamation

Mid-Pacific Region

2800 Cottage Way
Sacramento, CA 95825

Return Service Requested

What's inside:

Contact Us!

Jerry Robbins, Project Manager
San Luis Drainage Feature Re-evaluation
Bureau of Reclamation MP-700
2800 Cottage Way
Sacramento, CA 95825

Phone: (916) 978-5070

E-mail: grobbins@mp.usbr.gov

Web Site: http://www.usbr.gov/mp/sccao/sld